

REMARKS

In view of the above amendments and the following remarks, Applicants request favorable reconsideration of this application.

Claims 1, 2, 4-10, 13, 15, and 16 are now pending in this application, with Claims 1 and 16 being independent. By this Amendment, Applicants have canceled Claims 3, 11, 12 and 14, amended the specification and Claims 1, 2, 7-10, 13, and 15, and added new Claim 16. No new matter has been added.

The drawings stand objected to under 37 CFR § 1.83(a) for not showing every feature of the invention. Specifically, it is the Examiner's position that features of Claim 3 are not shown in the Figures. Without conceding the propriety of the objection, Applicants have canceled Claim 3, rendering the objection moot.

Claims 1, 2, 4-9, 11, and 15/11 stand rejected under 35 U.S.C. § 102 as being anticipated by Japanese Laid-Open Patent Application No. 10-107975 (Satoshi). Claim 3 stands rejected under 35 U.S.C. § 103 as being unpatentable over Satoshi in view of U.S. Patent No. 5,048,106 (Nakajima, et al.). Claim 10 stands been rejected under 35 U.S.C. § 103 as being unpatentable over Satoshi in view of U.S. Patent No. 5,751,492 (Meyers). Claims 12, 13, 15/12, and 15/13 stand rejected under 35 U.S.C. § 103 as being unpatentable over Satoshi in view of U.S. Patent No. 6,046,795 (Sugiyama, et al.). Claims 14 and 15/14 stand been rejected under 35 U.S.C. § 103 as being unpatentable over Satoshi in view of U.S. Patent No. 6,507,359 (Muramoto, et al.). Applicants traverse these rejections.

As recited in independent Claim 1, Applicants' invention is directed to a compound imaging system having at least three optical blocks and an imaging element. The

imaging element picks up object images formed by the optical blocks in imaging ranges provided for each optical block. The imaging system measures the distance to an object based on outputs from a pair of imaging ranges in the imaging element, which pair of imaging ranges corresponds to any one pair taken from the at least three optical blocks.

Thus, with the present invention, the pair of imaging ranges can be selected from any one of a number of combinations of the at least three optical imaging blocks.

Satoshi is directed to an optical imaging system. However, Applicants submit that Satoshi does not describe a technique of measuring the distance to an imaged object. Therefore, Applicants submit that that patent does not describe or suggest the features of the present invention.

Sugiyama, et al. is directed to a distance measuring instrument having a pair of image-forming lenses. While that document describes the pair of image forming lenses 1a and 1b, and a pair of photo sensor arrays 8a and 8b, the document does not describe the use of at least three optical blocks. Consequently, Sugiyama, et al. does not suggest using a combination of two optical blocks, from at least three possible optical blocks providing different imaging ranges.

Nakajima, et al. is directed to an image reader. The Office Action cites that document as describing a focusing lens used in conjunction with an image sensor. Applicants submit, however, that this document does not remedy the deficiencies discussed above with respect to Sugiyama, et al. and Satoshi, inasmuch as it does not describe or suggest the use of at least three imaging blocks.

Meyers is directed to diffractive lenslet array used in connection with an image sensor. The Office Action cites this documents as suggesting the use of a diffraction action

surface, in connection with the optical blocks in the present invention. Again, however, Applicants submit that this document fails to remedy the deficiencies discussed above with respect to Sugiyama, et al. and Satoshi.

Muramoto, et al. is directed to an image display system, and is cited in the Office Action as describing gathering images of an object that is more distance than the intersection of the optical axes of the optical blocks. Again, Applicants submit that this document fails to remedy the deficiencies discussed above with respect to Sugiyama, et al. and Satoshi.

Accordingly, Applicants submit that Satoshi, Nakajima, et al., Meyers, Sugiyama, et al., and Muramoto, et al., taken alone or in combination, fail to disclose or suggest at least the features of at three optical blocks and an imaging element, for picking up object images formed by the optical blocks in imaging ranges provided for each optical block, wherein the system measures the distance to an object based on outputs from a pair of imaging ranges in the imaging element, which correspond to any one pair of the at least three optical blocks, as recited in independent Claim 1.

New independent Claim 16 is directed to features from original Claims 1 and 6. Original Claim 6 was rejected in view of Satoshi. Applicants traverse this rejection and submit that Satoshi does not describe or suggest that a plurality of imaging ranges in the imaging element are formed on a single semiconductor substrate. Specifically, in Figs. 1 and 2 of Satoshi, it appears that the optical detection sections 17 are formed on different semiconductor substrates. Applicants note that an English-language translation of Satoshi accompanies this Amendment.

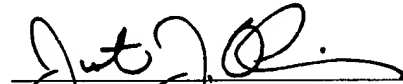
Applicants submit that the other cited patents fail to remedy the deficiency of Satoshi. Accordingly, Applicants request favorable consideration of new independent Claim 16.

The remaining claims in this application are dependent claims which depend from independent Claim 1. Applicants submit that the dependent claims are allowable for the reasons set forth above with respect to that independent claim. In addition, those dependent claims recite additional features that further distinguish them from the cited patent documents. Applicants request favorable and independent consideration of the dependent claims.

For the foregoing reasons, Applicants request withdrawal of the rejections under 35 U.S.C. § § 102 and 103, and allowance of this application.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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